

Remarks

The Office Action dated February 22, 2010, lists the following rejections: claim 11 stands rejected under 35 U.S.C. § 112(2); claims 1, 11-12 and 17 stand rejected under 35 U.S.C. § 103(a) over Belschner (U.S. Patent No. 7,103,805) in view of Vail (U.S. Patent No. 6,918,068); claims 3-10, 13, 15-16 and 18-20 stand rejected under 35 U.S.C. § 103(a) over the '805 and '068 references and further in view of Riley (U.S. Patent No. 5,706,289); and claims 2 and 14 stand rejected under 35 U.S.C. § 103(a) over the '805 reference in view of Vail (U.S. Patent No. 5,528,168) and further in view of Baek (U.S. Patent No. 5,680,554). Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action. In addition, as the Office Action has repeated substantially all rejections word-for-word, despite Applicant's (unaddressed) traversals regarding the lack of correspondence, Applicant also fully incorporates its traversals of record herein.

Each of the §103(a) rejection relying upon the primary '805 reference in combination with additional references fails to establish correspondence to multiple claim limitations as asserted. Using claim 1 as an example, the '805 reference fails to disclose limitations directed to a network node as claimed, including the combination of a communication unit, a bus driver and a bus monitor in which the communication unit and bus monitor respectively independently implement an access time schedule. Generally, the various assertions of correspondence to individual claim limitations either fail to correspond directly or fail to correspond to such limitations as arranged in the claimed invention (as a whole). Moreover, the Office Action confusingly first asserts that a "diagnostic unit" is the claimed communication unit, then later asserts that this same diagnostic unit is the claimed "bus driver." These and other improprieties with the rejections are discussed in greater detail below.

With reference to claim limitations directed to a communication unit of a network node as in claim 1 and relevant to all claims, the Office Action has attempted to assert that the cited "diagnostic unit" is the same as the claimed "communication unit." However, nothing in either the Office Action or the cited references suggests that this alleged diagnostic unit implements "a communication protocol for communication with other network nodes via a communication medium" as commensurate with the claimed

communication unit. The cited “diagnostic unit” does not appear to implement any communications protocol, much less doing so for communication with other network nodes. Instead, the “diagnostic unit” simply “monitors the regular retriggering of the bus monitor unit ... so that the bus monitor unit can be deactivated in the absence of retriggering.” Moreover, the integration of this “diagnostic unit” into the central node is done specifically to avoid problems that occur when the diagnostic unit is separate from the central node (*see* column 3:25-37). This “diagnostic unit” thus has no bearing upon the implementation of a communication protocol as suggested in the Office Action, and fails to correspond as asserted.

Regarding limitations directed to a bus monitor unit and a communication unit, the cited portions of the ‘805 reference fail to disclose these limitations as part of a central node and that both “mutually independently implement an access time schedule contained in a configuration data record.” Specifically, the Office Action has asserted that the cited “diagnostic unit” and “bus monitor unit” at column two respectively correspond to the claimed “communication unit” and “bus monitor unit.” The Office Action then goes on to assert that the background discussion of “time-registering means” at column 2:13 corresponds to these limitations. However, this “time-registering means” at column 2 is used with “bus monitor units” that are in completely separate “distributor units” at different locations on a network, for transmission and assignment of a transmission slot to each user. This “time-registering means” is thus not used within a common node, by both a communication unit and bus monitor that mutually independently implement a time schedule in a configuration data record. Moreover, as the ‘805 reference discourages use of such an approach as described at column 2:13 as carrying “out only an impoverished level of diagnostics,” the reference teaches away from using the cited time-registering means for its later-discussed bus monitor and/or diagnostic unit.

Specifically regarding claim limitations directed to a bus driver that evaluates release signals as claimed, the Office Action’s citation to column 3:13 as corresponding to a “bus driver [that] evaluates these two release signals” does not cite to a bus driver at all, but instead refers to a diagnostic unit. The Office Action goes on to assert that a “second time pattern” is made available to the diagnostic unit, but this time pattern does

not correspond to a release signal from a diagnostic unit and a bus monitor (which would further appear incongruous, as the cited diagnostic unit would not evaluate its own release signal). Accordingly, the Office Action has not established that any bus driver evaluating a “second time pattern” corresponds to the claimed bus driver. In addition, the only discussion of a “bus driver” in the entire ‘805 reference is at cited column 5 at lines 47 and 52, which suggests that the bus driver operates to detect activity on an “external bus line” and “transmits this signal to the other users via the star point of the central node.” This discussion fails to disclose any bus driver that can or would be capable of evaluating release signals, within a network node as claimed. The Office Action has not established correspondence to the bus driver, configured and as part of a network node as claimed.

Applicant further asserts that the proposed addition of the secondary Vail ‘068 reference, which discloses selecting between two available busses, fails to overcome the above-discussed deficiencies in the ‘805 reference. The ‘068 reference further fails to provide correspondence to blocking access of a network node in the event that release signals do not coincide. As discussed above, the ‘805 reference does not compare release signals as claimed. The addition of the ‘068 reference, which chooses a bus based upon a truth table used for determining an error in a bus enable signal, also fails to disclose any comparison as the cited truth table is based upon enable signals from “a plurality of bus controllers 32, 33,” which do not correspond to the claimed invention (see column 3:25-28).

The newly-cited portion of the ‘068 reference at column 5:22 and Figure 7 fails to overcome this lack of correspondence, as the cited “bus device 24” as apparently asserted as the claimed “bus driver” (in addition to the cited “bus driver” in the ‘085 reference) describes a separate device, which is not asserted as internal to a network node as claimed, in combination with the ‘085 reference or otherwise. The Office Action is simply devoid of any explanation as to how this “bus device 24” now overcomes the lack of correspondence, would (or could) be integrated with the ‘085 reference, or any motivation for doing so.

Specifically regarding claims 9, 13 and 18, the cited portions of the ‘068 reference, as combined with the ‘085 reference, fail to disclose communications with

network nodes that consist of communications over a single communications link. The proposed combination of references, including the dual-link approach in the '068 reference, fails to disclose blocking access to a single communication link as claimed, as the secondary '068 reference requires that two links be present.

The Office Action's attempt to assert correspondence to bus driver limitations in discussing independent claim 11 also fails because the cited watchdog, which the Examiner asserts is functionally equivalent to the bus driver, fails to perform the functions of the bus driver as claimed. The '805 reference states the "watchdog 20, which checks whether the bus monitor unit 5, in particular its computing unit 18, is triggered by means of cyclically recurring trigger signals, is connected directly to the computing unit." (Col. 6:46-50). The watchdog does not receive two release signals; it receives one signal from the bus monitor. It is not connected to, and therefore cannot receive a signal from, a second source. Because it does not receive two signals there is no way the watchdog can compare two signals. Accordingly, nothing in the record supports the asserted correspondence to the claimed bus driver.

In view of the above, the Office Action has failed to establish correspondence to various limitations in each of the independent claims. Accordingly, all rejections are improper and Applicant requests that they be removed.

Applicant further traverses the § 103 rejection of all claims because the cited references teach away from the Office Action's proposed combination. Consistent with the recent Supreme Court decision, *M.P.E.P.* § 2143.01 explains the long-standing principle that a § 103 rejection cannot be maintained when the asserted modification undermines either the operation or the purpose of the main '805 reference - the rationale being that the prior art teaches away from such a modification. *See also KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007) ("[W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious."). In this instance, the proposed combination would render the '085 reference inoperable because it would result in blocking or allowing bus access based upon the cited truth table in the '068 reference, rather than using an internal diagnostic unit that also functions when "data communication outside the central node has partially collapsed" as discussed at column 2:31-32. Specifically, using the external

monitoring/truth table of the '068 reference to detect bus enable signals from different units removes the internal diagnostics of the '085 reference, and renders it inoperable for its related purpose as discussed above, for alleviating the need for a separate communications network (column 2:66-67), and enjoying spatial proximity (column 3:26-29). Accordingly, modifying the '805 reference as asserted would render it inoperable for its various stated purposes related to internal monitoring at a central node using a diagnostic unit. Under M.P.E.P. § 2143.01, the rejections cannot be maintained.

Applicant further traverses the rejections of various dependent claims as relying upon the tertiary '289 and '554 references because the references fail to teach or suggest limitations as asserted in the instant Office Action, which has also failed to address Applicant's traversals regarding these references and the lack of disclosure, contrary to the requirements of M.P.E.P. § 707.07(f). The references cited in alleging correspondence to various limitations in the dependent claims remain the same. As this is now the third time the same rejections have been presented, without addressing Applicant's traversals, Applicant further maintains and fully incorporates its (uncontested) traversals of the §103 rejections of the dependent claims.

For example, the cited "element" (445 and 446 in the '289 reference) does not appear to show any inverse coding as in claim 3, as each "element" appears respectively to refer to a node at which an output 451 of a flip-flop 450 and a clock signal are provided (*see, e.g.,* Col. 22:3-45). Generally, the rejection is vague and unclear as to what is being asserted as teaching or suggesting inversely-coded signals and, specifically, inversely-coded trigger signals as modified by the '805 reference, and the instant Office Action has failed to further clarify (or even mention) these rejections. Regarding claims 4 and 5, the Office Action's citation to a low-pass filter for improving the fidelity of a protection time slot logic does not disclose limitations directed to an evaluation of release signals under the influence of a low-pass filter. Regarding claims 6 and 7, the Office Action's citation to an interface to a communications computer does not disclose claim limitations directed to error-state detection that is "resettable from the outside" (claim 6) or "signaled to the outside" (claim 7). These are examples of claims bearing limitations to which no correspondence has been provided on the record, and the rejections of other claims similarly fail. As such, the rejections of these claims cannot be maintained.

Regarding the Section 112(2) rejection of claim 11, the rejection is based upon an assertion that there is “no clear transition between the preamble of the claim and the body.” While Applicant traverses this rejection as it is clear that the phrase “the bus driver evaluates ...” includes limitations pertaining to the bus driver (relative to the preamble), Applicant has amended the format of the claim to facilitate readability of the claim. Applicant believes that claim 11 is generally consistent in scope, relative to the scope of the claim prior to amendment, and further that the Section 112(2) rejection is no longer applicable.

In view of the above and the traversals of record as incorporated herein (and unaddressed in the instant Office Action), Applicant believes that each of the rejections/objections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Juergen Krause-Polstorff, of NXP Corporation at (408) 474-9062.

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